



FINANCING AND BUSINESS MODELS THAT DELIVER

Canada EU exchange on energy efficiency
in buildings and housing

15/06/2021



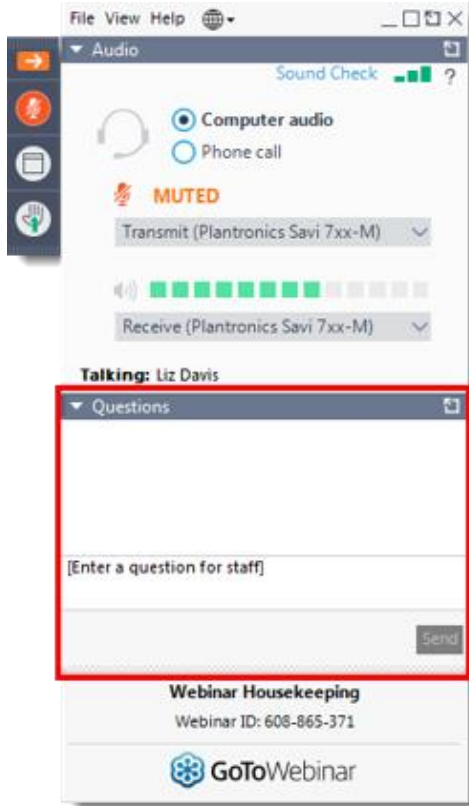
Housekeeping



The screenshot shows a GoTo Webinar interface. The main window displays the title "Webinar Housekeeping" and identifies the organizer and presenter as Liz Davis. It provides contact information for the United States (+1 (951) 384-3421), an access code (400-696-084), and an audio PIN (19). A "Questions" section is visible on the right side of the interface, with a text input field for entering a question for staff. The bottom of the screen shows a Windows taskbar with various application icons.



Housekeeping



Your Participation

Join audio:

- Choose “Mic & Speakers” to use VoIP
- Choose “Telephone” and dial using the information provided
- Please continue to submit your text questions and comments using the Questions panel
- The slides are available for download now as a handout

Questions/Comments:

- Submit questions and comments via the Questions panel
- Please continue to submit your text questions and comments using the Questions Panel

Note: Today’s presentation is being recorded and will be provided within 48 hours, along with the slide deck.



Welcome & agenda

Oliver Rapf, Executive Director, BPIE

Session 1: Boosting energy efficiency investments

- **Energy efficiency financing: Strategies and considerations in non-domestic real estate in Europe**
Ioannis Orfanos, Partner, Arbitrage Real Estate
- **Unlocking Investments in Retrofits**
Akua Schatz, Vice-President for Market Engagement and Advocacy, Canada Green Building Council
- **Q&A**

Session 2: Linking funds to projects – Business models that deliver

- **Providing Energy Services Contracting in Canada**
Stuart Galloway, CEO at Energy Services Association of Canada (ESAC)
- **Financing energy efficiency projects and scaling business models: An investor's perspective**
Csaba de Csiky, Chairman & Managing Partner, EnerSaveCapital
- **Q&A and panel discussion** with all speakers

Closing remarks

Oliver Rapf, Executive Director, BPIE



Boosting energy efficiency investments



Ioannis Orfanos
Partner,
Arbitrage Real
Estate



Akua Schatz
Vice-President
for Market
Engagement and
Advocacy,
Canada Green
Building Council





Energy efficiency financing: Strategies and considerations in non-domestic real estate in Europe

Ioannis Orfanos, Partner, Arbitrage Real Estate





Energy Efficiency (EE) Financing

Strategies and Considerations in Commercial Real Estate

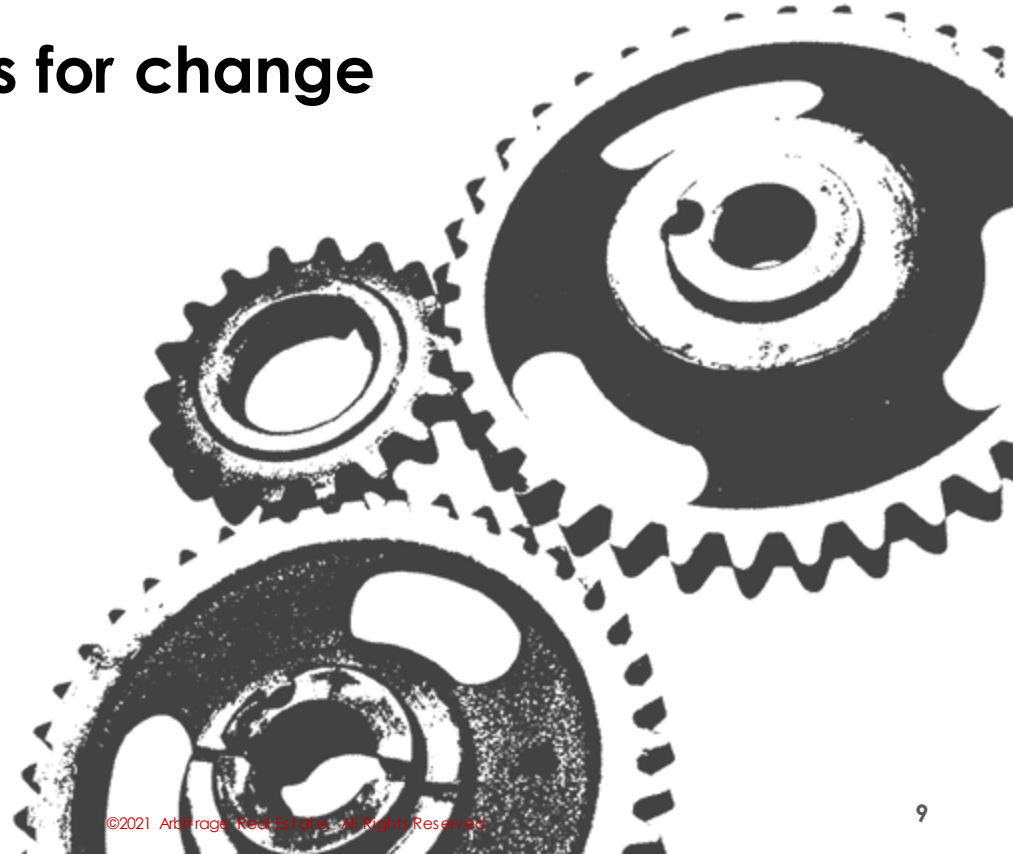
Ioannis Orfanos
Partner, Arbitrage Real Estate

15 June 2021



- **Main Drivers for change**
Technology, Transition and Integration
- **Understanding Energy Efficiency (EE) Finance**
Complexities and Barriers
- **Investment Strategies and Commercial Aspects**
Underwriting and Strategies
- **Buy-Fix-Sell:**
Value Add and Health&Wellbeing

Main drivers for change



Main drivers for change

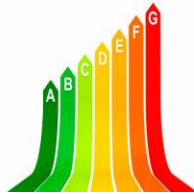
Important technological developments

1



**On site-
Renewables**

2



**Energy Efficiency
Building Materials,
Products and Kit**

3



**Localised
Storage**

4



**Smart
Metering
– AI/ ICT
in
Buildings**

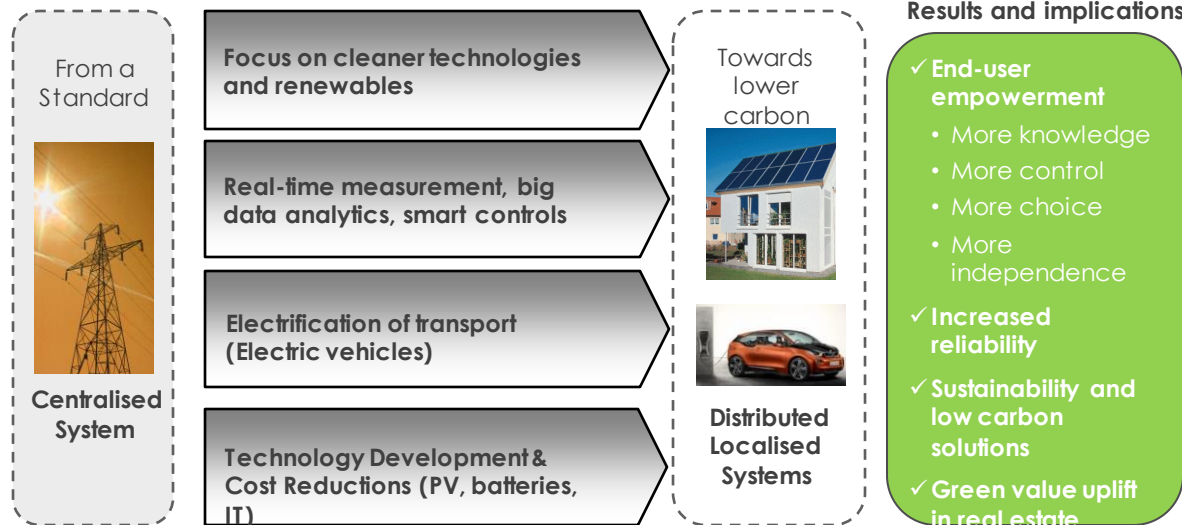
5



**EV
Charging**

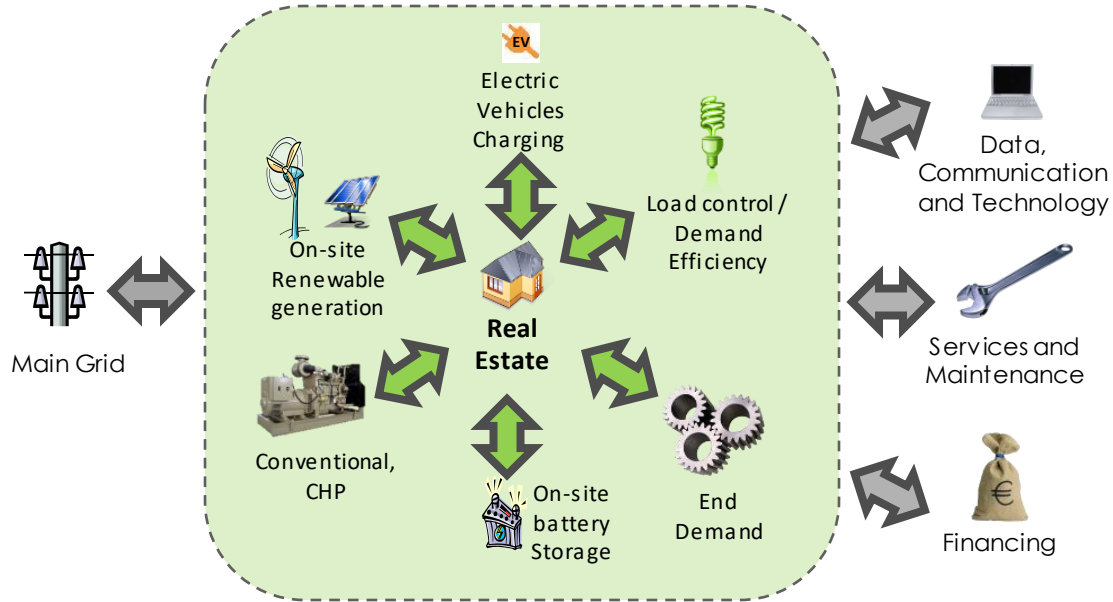
Main drivers for change

Transition from 'old' energy to 'new' energy - a fundamental shift

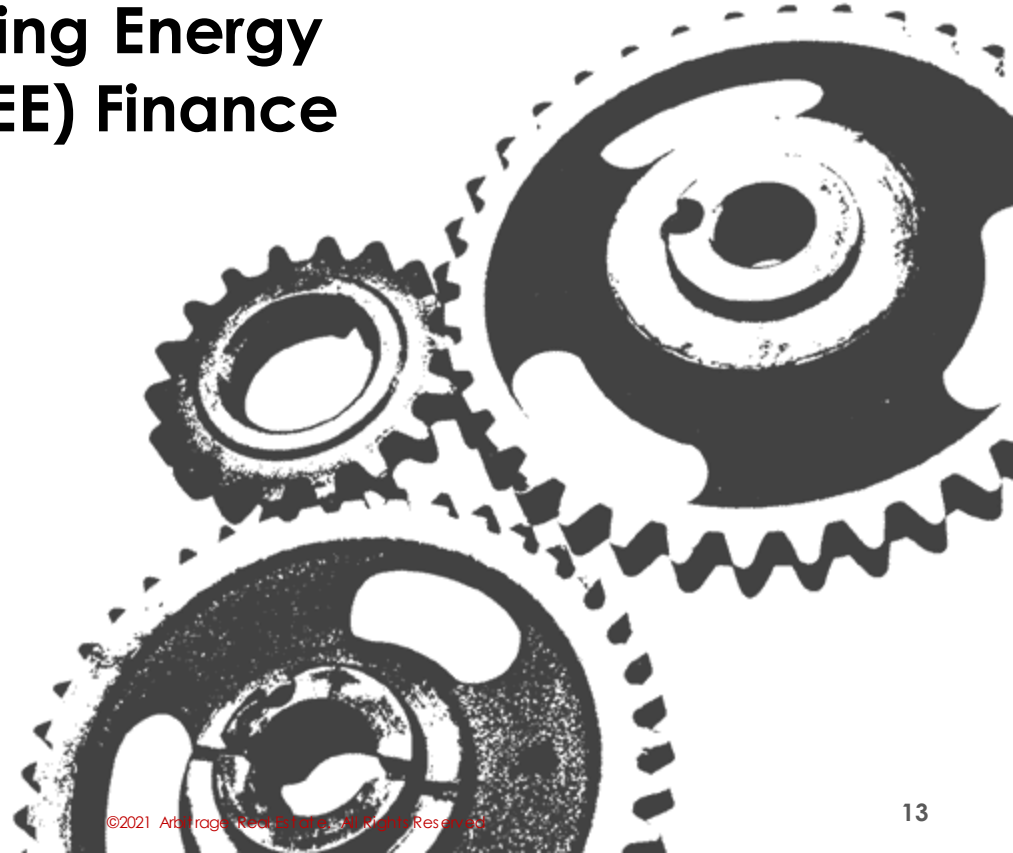


Main drivers for change

Towards a clean tech integrated path in real estate



Understanding Energy Efficiency (EE) Finance

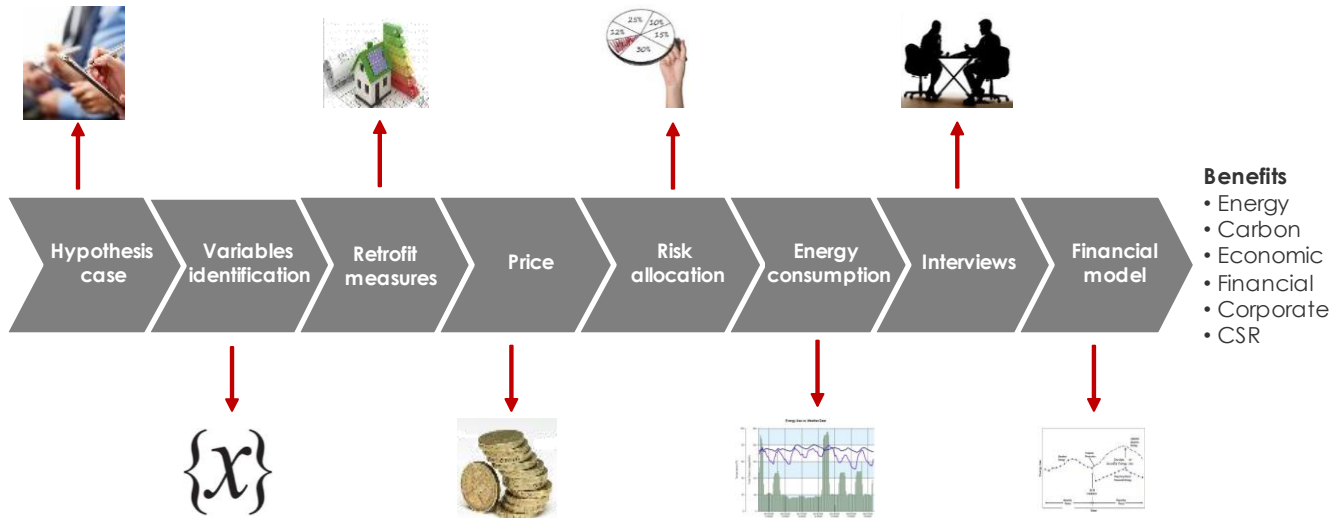


Understanding Energy Efficiency (EE) Finance

The complexity of business case development

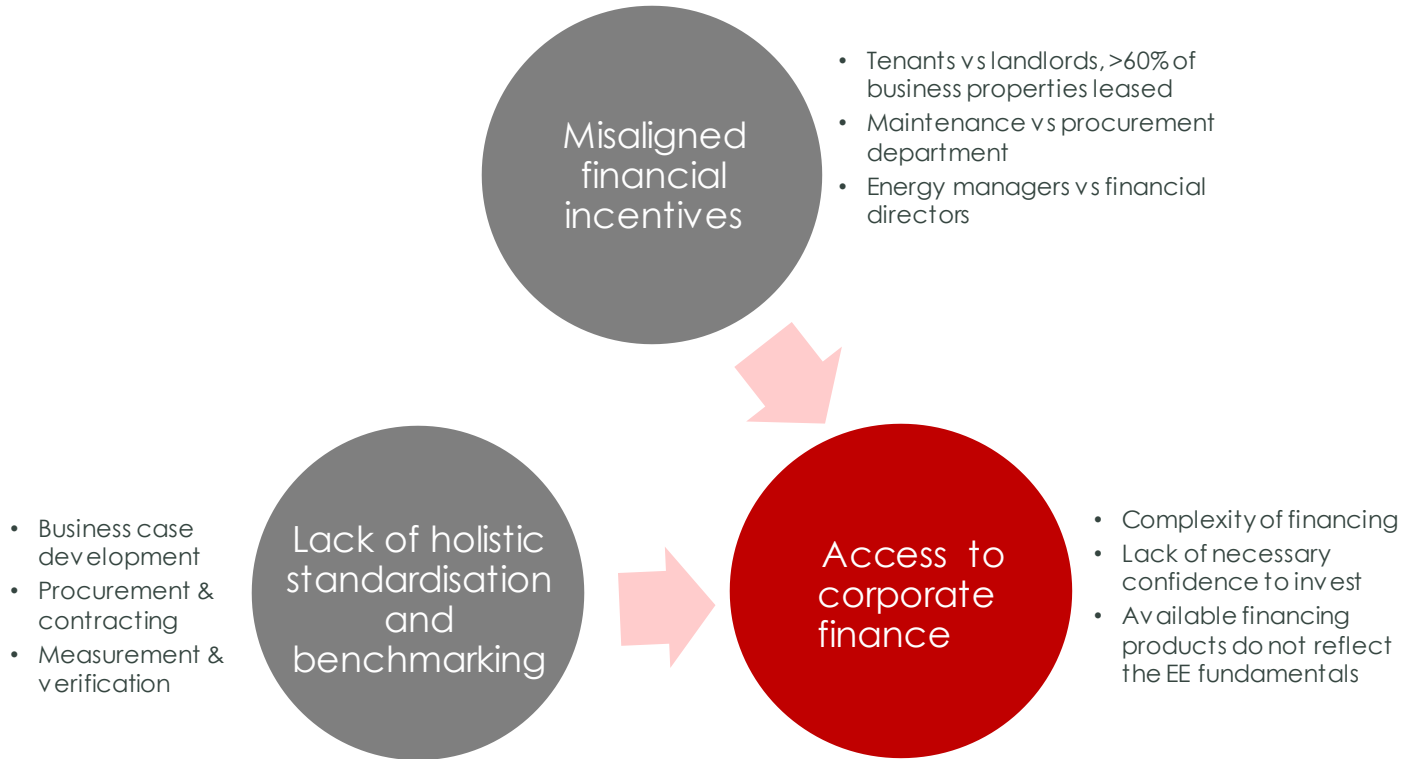
A proper business case to:

- Focus on financial structuring, optimum financing solution
- Focus on internal rate of return and to a lesser extent to payback periods
- Highlight the additional corporate benefits (risks mitigation, compliance, CSR, investment)
- Gain senior-management buy in



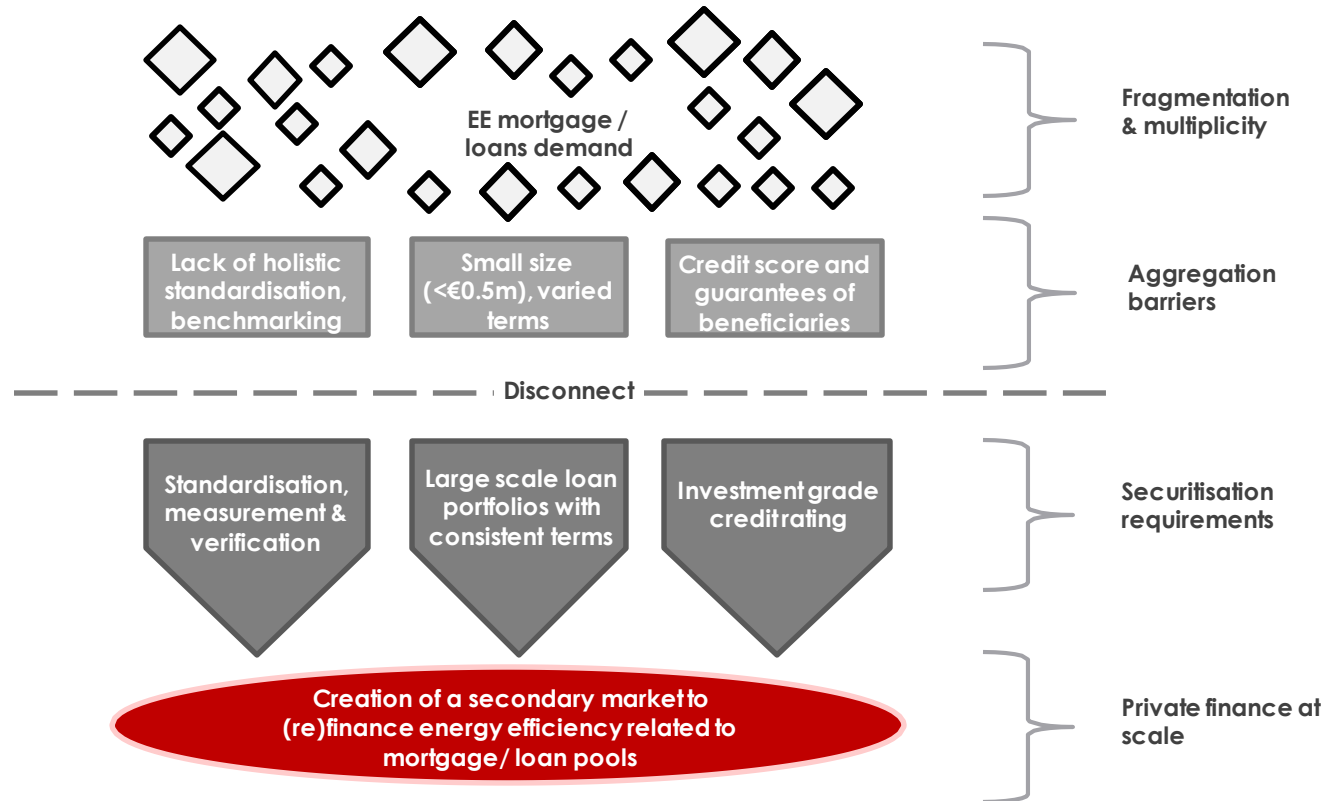
Understanding Energy Efficiency (EE) Finance

The general market barriers to EE finance uptake



Understanding Energy Efficiency (EE) Finance

Aggregation barriers in EE financing



Investment Strategies and Commercial Aspects



Investment Strategies and Commercial Aspects

Financing based on energy efficiency strategy

Energy Strategy	Technical solutions	Cash (balance sheet)	Debt (extended balance sheet)	3 rd party (off balance sheet)
Generation – Income	<ul style="list-style-type: none"> Renewables • Biomass • CHP • Solar (rooftops) • Battery/Storage • District heating 	<ul style="list-style-type: none"> • CapEx budget • Cash reserves • Direct equity 	<ul style="list-style-type: none"> • Dedicated credit lines • Vendor lease (% PPA income) • Project finance loan (based on PPA and equipment guarantees) • Green bonds 	<ul style="list-style-type: none"> • Renewable energy funds • EPC – ESCo finance • Cleantech funds • Risk sharing facilities
	<ul style="list-style-type: none"> M&E Equipment • BEMS • Boilers • HVAC • Transmission • Lighting 	<ul style="list-style-type: none"> • Working capital • CapEx budget • Cash reserves • New equity 	<ul style="list-style-type: none"> • Dedicated credit lines • Vendor lease (% savings) • Corporate loan • Project finance • Green bonds 	<ul style="list-style-type: none"> • ESA- ESCO finance • Energy efficiency funds • Risk sharing facilities • On-bill financing
Reduction – Saving	<ul style="list-style-type: none"> Fabric • Glass • Insulation • Shading 	<ul style="list-style-type: none"> • CapEx budget (part of refurbishment) • New equity 	<ul style="list-style-type: none"> • Corporate loan (balance sheet guarantee) 	<ul style="list-style-type: none"> • Govt subsidized instruments • On-bill financing
	Cost of capital depending on	0-20% WACC/ Alternatives	~ 3-8% credit rating	~ 8-10+% on type of fund

Certainty of returns ↑

Investment Strategies and Commercial Aspects

Major investment strategies in Commercial Real Estate

Strategies	Main financiers	Type of Assets/Projects ¹	Additional sources of finance
Capital Expenditure (Own finance)	<ul style="list-style-type: none"> • Public sector • Property investors • Landlords / REICs • Corporate owner occupiers 	<ul style="list-style-type: none"> • Government estates • Public infrastructure • Core commercial real estate (e.g. office, hotel, retail etc) • Asset with long residual commercial life 	<ul style="list-style-type: none"> • Equipment vendor leases • Grants, subsidies, tax incentives • Development banks (risk sharing facilities) • Commercial banks (dedicated credit lines) • Green bonds
3rd party finance (ESA or EPC)	<ul style="list-style-type: none"> • ESCo financing • Public funds (e.g. UK Salix) • Energy efficiency funds • Utilities (on-bill financing) 	<ul style="list-style-type: none"> • Government estates • Public infrastructure • M.U.S.H.² • Corporate owned real estate 	<ul style="list-style-type: none"> • Equipment vendor leases • Grants, subsidies, tax incentives • Development banks (risk sharing facilities) • Commercial banks (dedicated credit lines) • Public Private Partnerships • Green bonds
Buy-Fix-Sell	<ul style="list-style-type: none"> • Added-value funds • Opportunistic funds • Distress funds 	<ul style="list-style-type: none"> • Commercial real estate with owners in distress • Semi-completed developments • Aged commercial real estate 	<ul style="list-style-type: none"> • Discounted acquisition price (indirect) • Commercial banks (incl. acquisition credit) • Green bonds • Specialized mezzanine funds

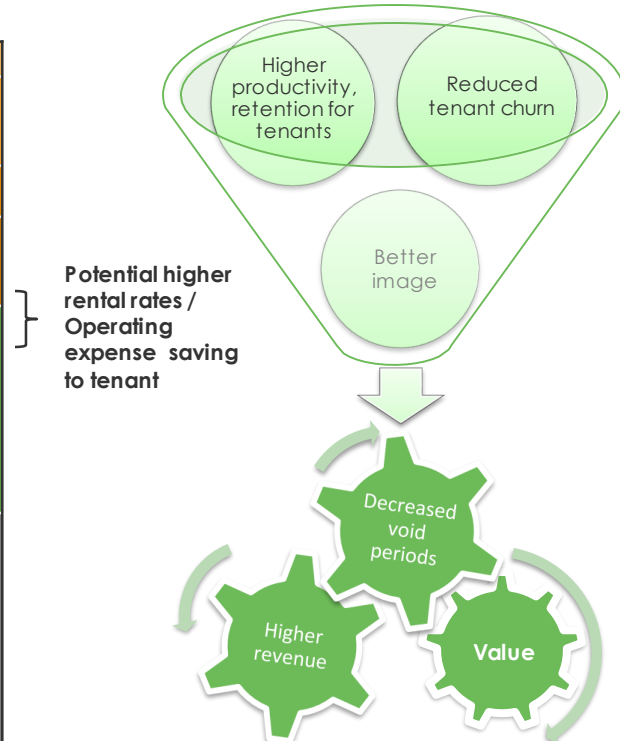
Notes: 1 – It does not include stand alone off-site renewable energy projects

2 – Municipalities, Universities, Schools and Hospitals

Investment Strategies and Commercial Aspects

Value add strategy

		Ordinary Building	Sustainable Building
Total Occupancy Costs	Operating occupancy expenses	Other	Other (tax, insurance)
		Facility management	Facility management (cleaning, catering, security)
		Maintenance Cost	Maintenance Cost
		Energy Cost	Energy Cost
			Savings
	Rent	Rent	



(Buy-)Fix-Sell: Value add strategy



(Buy-)Fix-Sell: Value add strategy

Investment opportunity

Increasing regulation, changing tenant demand, investment appetite and shortage of suitable stock creates an opportunity to generate attractive risk adjusted returns through a resilient value add strategy

1

Increasing regulatory ambition driving tenants to consider the energy efficiency upgrade of their occupied properties

- The Global Climate Agreements
- EU Investment Goals and Energy Transition Plans
- Energy Efficiency (EED) and Energy Performance in Buildings (EPBD) Directives
- National Regulations for Energy Efficiency and Low Carbon Buildings

2

Significant tenant and investor demand for more sustainable and "healthier" buildings

- Corporate occupiers are increasingly demanding for sustainable, low carbon, energy efficient and "healthier" buildings
- Major corporate occupiers demand provides value generation opportunities
- Major institutional investors target climate resilient and green certified properties

3

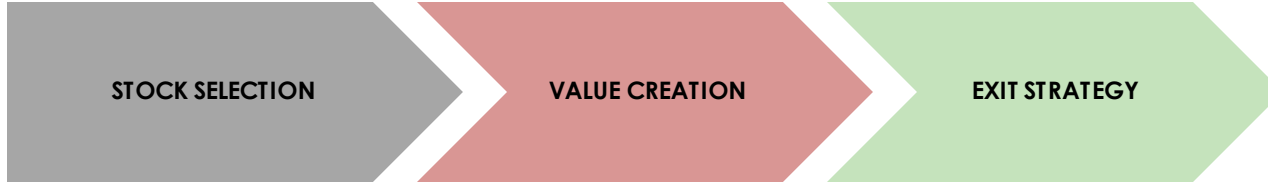
Inadequate supply of energy efficient and sustainable buildings

- Deep pool of non compliant assets that need repositioning
- Viable opportunities to fully reposition existing buildings
- Resilient assets are attracting occupiers and higher values

(Buy-)Fix-Sell: Value add strategy

Selection, value creation and exit

The Real Estate Investors target assets that offer value-add upside potential through sustainability led active asset management



- Invest in knowledge driven economies and vibrant cities
- Macro locations that benefit from access to robust low carbon infrastructure
- Predominantly commercial locations within cities
- Target (mostly office) assets with value add upside potential
- Acquire EPC ratings G/F/E, improve to B/A/A+
- Seeking ticket size mainly between €10-50m
- JVs with 'Green' (re)Developers or Corporate Occupiers
- Active asset management:
 - Asset repositioning
 - Retrofit existing space
 - Lease vacant retrofitted space
 - Rent reviews and lease re-gears in retrofitted space
- Generate 'Green Alpha' – additional asset value through improved certified sustainability and health& wellness aspects
- Focused on creating 'future proofed' (mostly office) assets – attractive to corporate occupiers and institutional investors
- Emphasis on mitigating the commercial risk of asset obsolescence / downside risk protection
- Emphasis on the sustainability and climate resilience benefits during asset marketing
- Promote to institutional investors to fuel their vast appetite for climate resilient and sustainable assets that de-risk their portfolio's investment performance

(Buy-)Fix-Sell: Value add strategy

The trend of Health & Wellbeing in Buildings

"The trends all point in a single direction... Wellness is the next trillion dollar industry"
McKinsey & Co

First tenant, then office indoor design

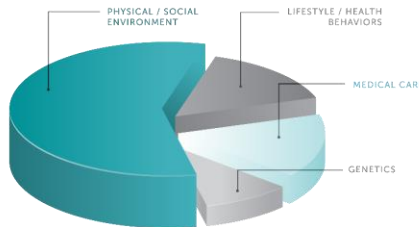
- Employees spend 90% of their time indoors.
- Tenants value therefore indoor air quality, temperature comfort and physical lighting to improve their staff physical health and thus perceived productivity.



Source: International WELL Building Institute

The importance of the physical office space

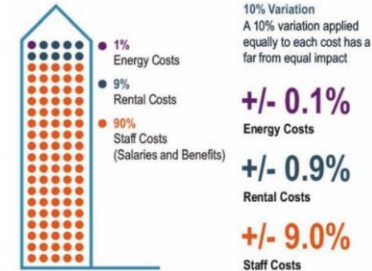
- The physical office influence the health of occupiers and can be measured or evaluated
- 90% of employees admitted that their attitude to work is adversely affected by the quality of their workplace



Source: US Center for Disease Control & Protection

Business tenant operating costs and productivity

- Staff accounts for 90% of operating costs, doubling the health level of an office can double productivity



Source: World GBC

(Buy-)Fix-Sell: Value add strategy
Certification of Health & Wellbeing in Buildings



Focus on the elements that can be certified



(Buy-)Fix-Sell: Value add strategy

Investment benefits of Health & Wellbeing in Buildings

Measured and evaluated outcomes



- Design: 0%, human-focused design does not cost more
- Additional construction or retrofit: 0% - 5% as long as the principles are established from the start
- Materials: c. 10% increase. Less toxic materials are more expensive at present
- The corporate office health & wellbeing environment can have a direct impact on occupants productivity.
- The outcome for the corporate tenant can be measured or evaluated in the following ways:
 - Absenteeism/Presenteeism
 - Staff turnover and retention
 - Medical complaints and related insurance costs
 - Physical complaints
 - Task efficiency and revenue
- Leasing: Reduced vacancy, potential higher rental values
- Turnover: Reduced, higher retention of blue chip tenants
- Marketability: Faster and easier lease up or sell
- Transactability: More attractive asset proposition for institutional buyers
- Value: Green alpha yields

Energy Efficiency (EE) Financing Contact Information



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Address: 2 AMFITHEAS & SYNGROU AVENUE, ATHENS, GREECE
Phone Number: +30 2109403431
Email Address: info@arbitrage-re.com
Website: www.arbitrage-re.com

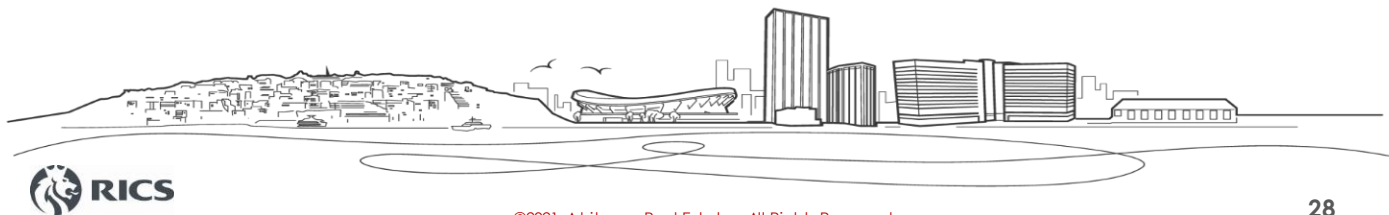


Disclaimer



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Thank you

Strategies and Considerations in Commercial Real Estate

Ioannis Orfanos
Partner, Arbitrage Real Estate

15 June 2021





Unlocking Investments in Retrofits

Akua Schatz, Vice-President for Market Engagement and Advocacy,
Canada Green Building Council






Accelerating Low Carbon Buildings in Canada

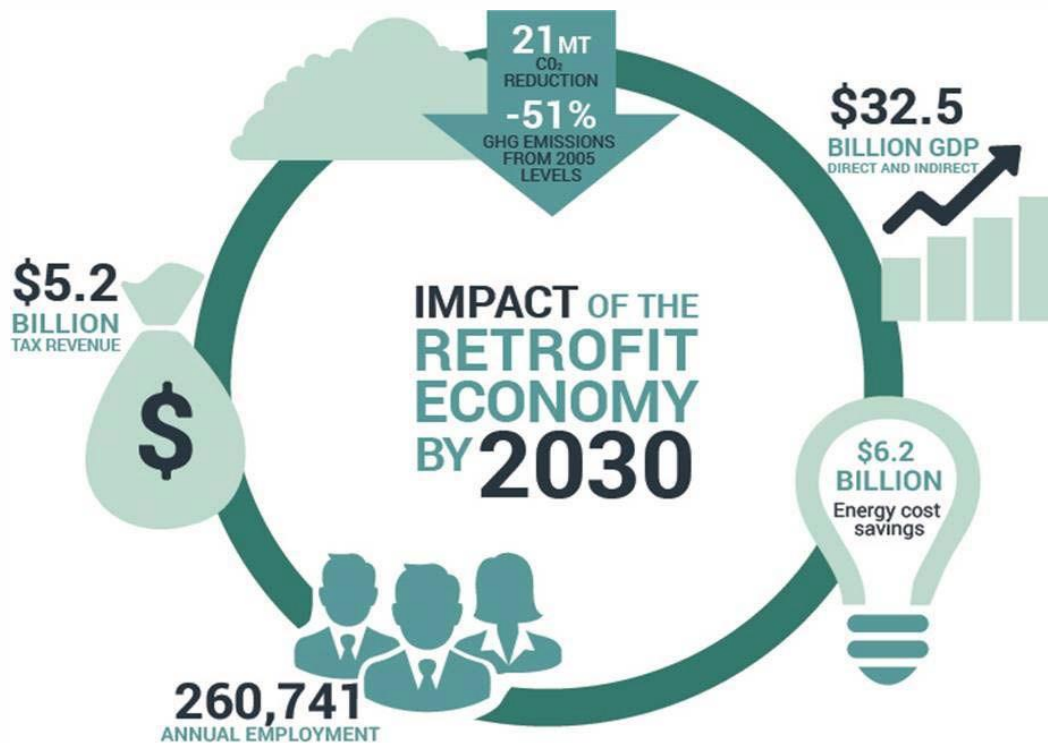
June 15, 2021

Akua Schatz, VP Advocacy & Market Engagement
Canada Green Building Council

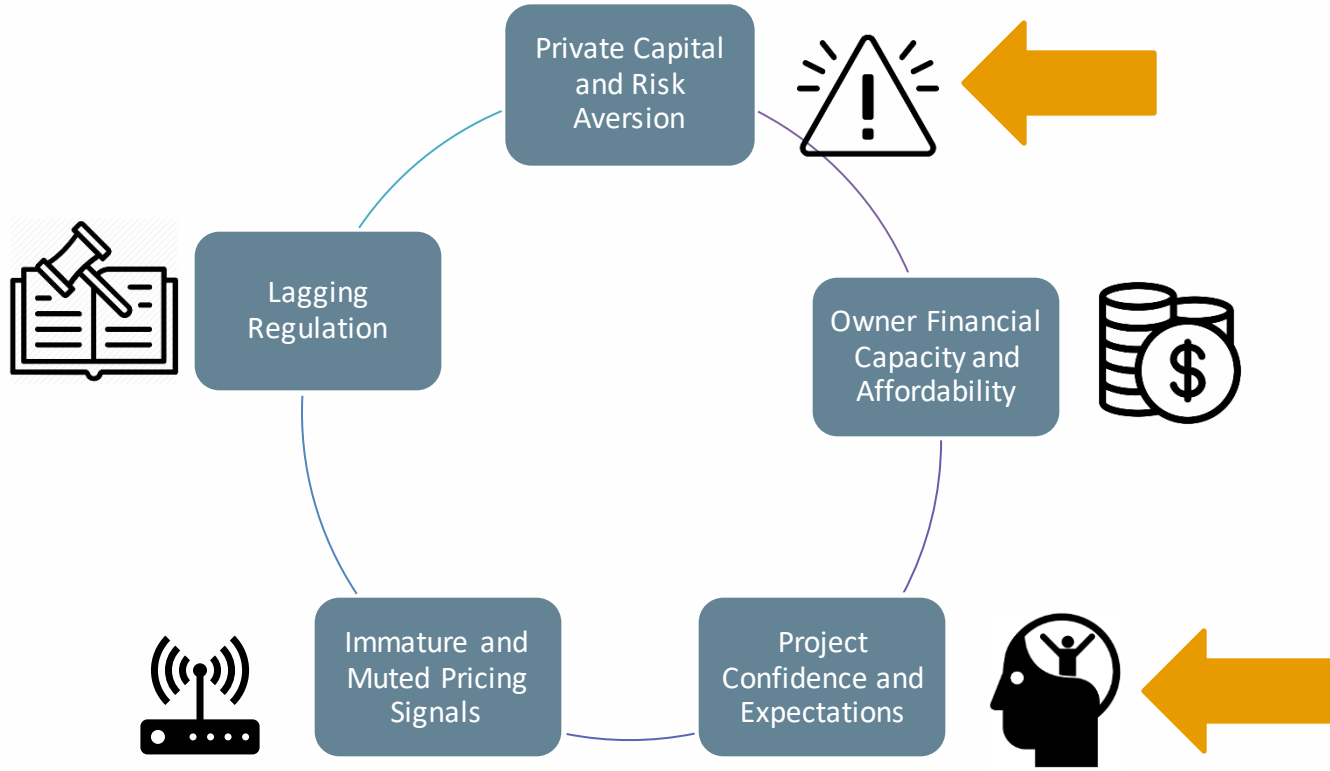
An aerial, high-angle photograph of a dense urban skyline, likely New York City. The image shows numerous skyscrapers and buildings, with a prominent white-domed building in the upper center. A dark blue semi-transparent rectangular box is overlaid in the center of the image, containing white text. The text reads: "Not enough economically viable energy efficiency retrofit projects are being implemented in our buildings today...". The background is slightly hazy, suggesting a clear but bright day.

Not enough economically viable energy efficiency retrofit projects are being implemented in our buildings today...

GREAT OVERALL RETROFIT MARKET POTENTIAL

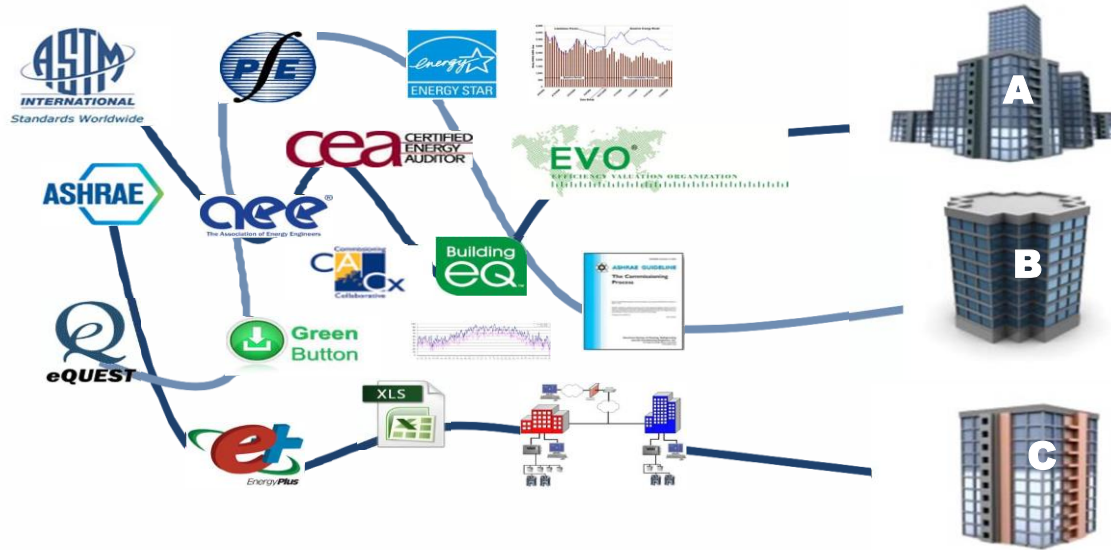


Barriers to a Strong a Retrofit Economy

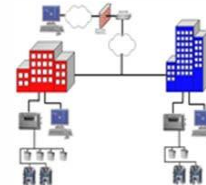


CURRENT RETROFIT MARKET REALITY

Custom Projects Lead to Costly Review



IREE CERTIFICATION REQUIREMENTS



BASELINING

- Existing Building
- Drawings
- Weather File
- Energy Usage
- Energy Rates
- Occupancy

SAVINGS

- Model File
- Calibration Data
- Bid Packages
- Certifications

COMMISSIONING

- Cx Plan
- Cx Authority
- Test Procedures
- Facilities Req.

OPERATION

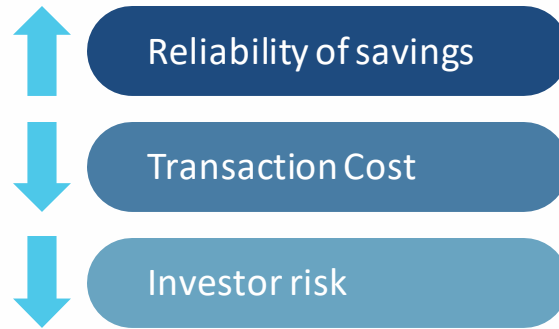
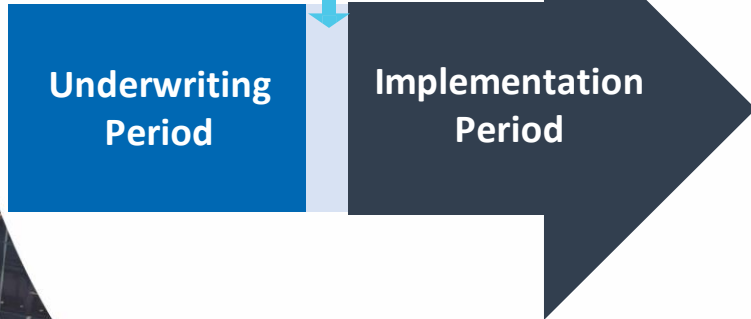
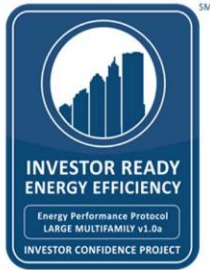
- BMS Points
- Fault Plan
- Maintenance Plan

MEASUREMENT

- M&V Model
- Regression Model
- Adjustments
- Impact
- Baseline Adjustments

ICP Standardizes Project

INVESTOR READY ENERGY EFFICIENCY ADVANTAGE



IREE is a quality mark like LEED & ZCB, but for building retrofit projects





Investor Confidence Project in Action

CANADA INFRASTRUCTURE BANK (CIB) COMMERCIAL BUILDING RETROFIT INITIATIVE

Reduce GHG emissions

- Reduce greenhouse gas emissions from **privately-owned commercial buildings** through decarbonization retrofits



**\$2 Billion
Investment**

Transform the market

- **Crowd in private capital.**
- Drive retrofit activity that **goes beyond** industry norm, reaching more buildings and achieving deeper retrofits.
- Help establish energy retrofit investments as a **distinct asset class.**

Support co-benefits

- Support **job creation**, reduced energy costs, improved quality of life and associated **social benefits**
- Support long term **sustainable asset renewal** and climate change resiliency.

CBR INITIATIVE OVERVIEW

Purpose	Aggregate multiple retrofit projects, or invest in large single retrofits
Applicant	Building portfolio owner or retrofit aggregator
Rates	1-3% (tied to target GHG savings)
Term	Up to 25 years (tied to target GHG savings)
Size	Minimum \$25 million investment opportunity for the CIB
Building Types	Privately-owned commercial, industrial, and multi-unit residential buildings (> 5 units – excludes buildings covered by Part 9 NBC)
Coverage Ratio	80% (excluding grants and utility incentives) SPV must raise 20% minimum from an equity investor

CIB DUE DILIGENCE PROCESS

- Canadian Infrastructure Bank (CIB) will require all applicants to its Commercial Building Retrofit Initiative (CBRI) program to complete - Investor Ready Energy Efficiency (IREE) certification
- Applicants must confirm that the project has completed each of the steps in the retrofit project development cycle consistent with ICP Protocols. Projects must **have achieved or will achieve IREE Certification.**



Signs of a Mature Retrofit Economy





QUESTIONS AND DISCUSSION

Akua Schatz

VP, Advocacy & Market Engagement

Canada Green Building Council

aschatz@cagbc.org



Q&A



Linking funds to projects – Business models that deliver



Stuart Galloway
CEO at Energy
Services
Association of
Canada (ESAC)



Csaba de Csiky
Chairman &
Managing Partner,
EnerSaveCapital





Providing Energy Services Contracting in Canada

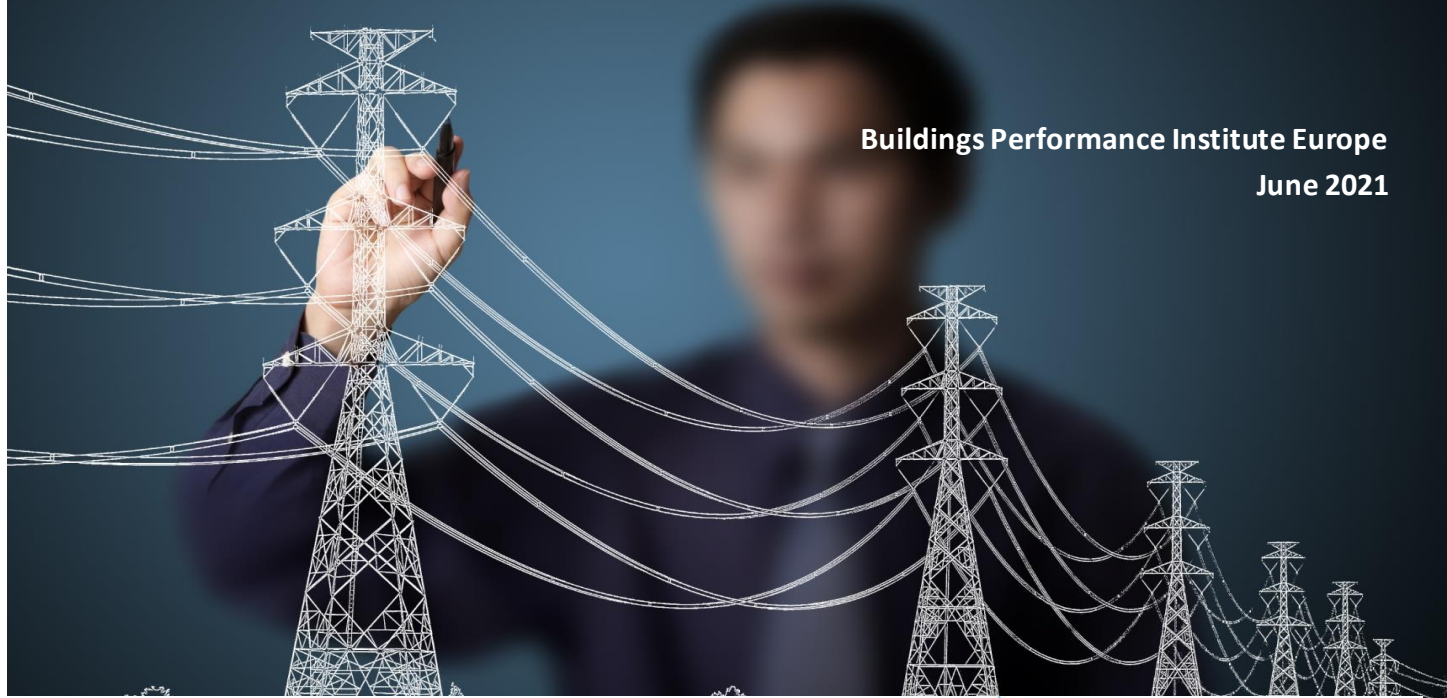
Stuart Galloway, CEO at Energy Services Association of Canada (ESAC)



Providing Energy Services Contracting in Canada – The Art of the Possible

Buildings Performance Institute Europe

June 2021



ENERGY SERVICES
ASSOCIATION
OF CANADA

PROMOTING
PERFORMANCE
BASED SOLUTIONS

ENERGY SERVICES ASSOCIATION OF CANADA

- Incorporated August 2010
- 6 founding independent energy service companies



SIEMENS



Honeywell

- Represent >90% \$400 mil/year market for guaranteed Energy Service Performance Contracts (ESPC)

The Challenge Ahead

Unprecedented financial turmoil

- Canada combined debt \$2 trillion
- Unemployment rate of 8.9% with certain provinces higher
- Energy demand & prices increasing
- Canadian Legislation compliance for carbon
- Targeting Net Zero by 2050



Canada is set to fall short of its 2030 target to slash energy consumption by 30% currently forecasted less than 20% by the deadline

Energy We Waste In Buildings



- Buildings account for **11%** of domestic GHG emissions
- In Canadian climate we **waste 25%+** of the energy we consume
- Canada's buildings **waste approx. \$150 billion** every year
- 75% of the buildings we will occupy in 2050 are **standing today**

DIY solutions tend to generate between 5 and 10% savings only



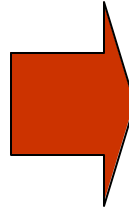
ENERGY SERVICES
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PERFORMANCE
BASED SOLUTIONS

Where should we focus?

**\$1 spent on more efficient energy use avoids
\$3 in investment in energy supply**

Supply Side



Demand Side



The greenest energy is the energy that isn't generated



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BASED SOLUTIONS

Regional Trends?



- Every province is looking at EE and/ or GHG reduction
- Federal Carbon pricing
- Mixed on incentives
- Stimulus money

***\$10-12.5 Billion in new investment
150,000 – 190,000 net new jobs***



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PERFORMANCE
BASED SOLUTIONS

Emerging Trends....



- Traditional EPC model through an ESCO with performance guarantee and sometimes private sector financing
- Canada Infrastructure Bank
- SuperEsco model (finance led)
- New stuff
 - Inclusion of renewables,
 - EV Fleet acquisition
 - Extending contract periods for deeper retrofits,
 - inclusion of maintenance,
 - Federal green bonds



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The Good News Is



Change is happening!



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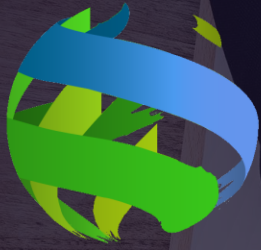
PROMOTING
PERFORMANCE
BASED SOLUTIONS



Financing energy efficiency projects and scaling business models: An investor's perspective

Csaba de Csiky, Chairman & Managing Partner, EnerSaveCapital





EnerSaveCapital

Financing Energy Efficiency Projects and Scaling business models: *An Investor Perspective*

	M	T	W	T	F	S	S
							1
2	3	4	5	6	7	8	
9	10	11	12	13	14	15	
16	17	18	19	20	21	22	
23	24	25	26	27	28	29	
30	31						



The key for scaling energy saving measures

- ✓ Needs to be implemented and financed by a third party
- ✓ Needs to be off-balance sheet
- ✓ Needs to pay for itself
- ✓ Needs to be easily financeable



Institutional Investor Logic

- ✓ a minimum issue size of € 50 Mio (preferably € 100 Mio.)
- ✓ a minimum ticket they would be able to subscribe to is of € 5 Mio.
- ✓ preferably an A credit rating
- ✓ a green bond certification
- ✓ a listing
- ✓ preferably a tenure of 5 to 10 years.
- ✓ from the € 5K to 100K measure to a 100 Mio Note which investor are willing to subscribe to, **there is a large gap.**

Such gap we will only be able to bridge if we are able to co-mingle assets generated by various implementers to a standardised quality and within a standardised legal contractual framework.



EU H2020-funded LAUNCH project

EnerSaveCapital is a Luxembourg based company that with 4 key business lines:

- ✓ Advisory services in the field of energy saving and green energy generation
- ✓ ESG advisory services
- ✓ Securitization services
- ✓ EU funding advisory services

Within the EU H2020-funded “LAUNCH” project, amongst other work packages we lead the creation of standardised “As a Service” or “aaS” for the Energy Service Companies or “ESCO’s”.

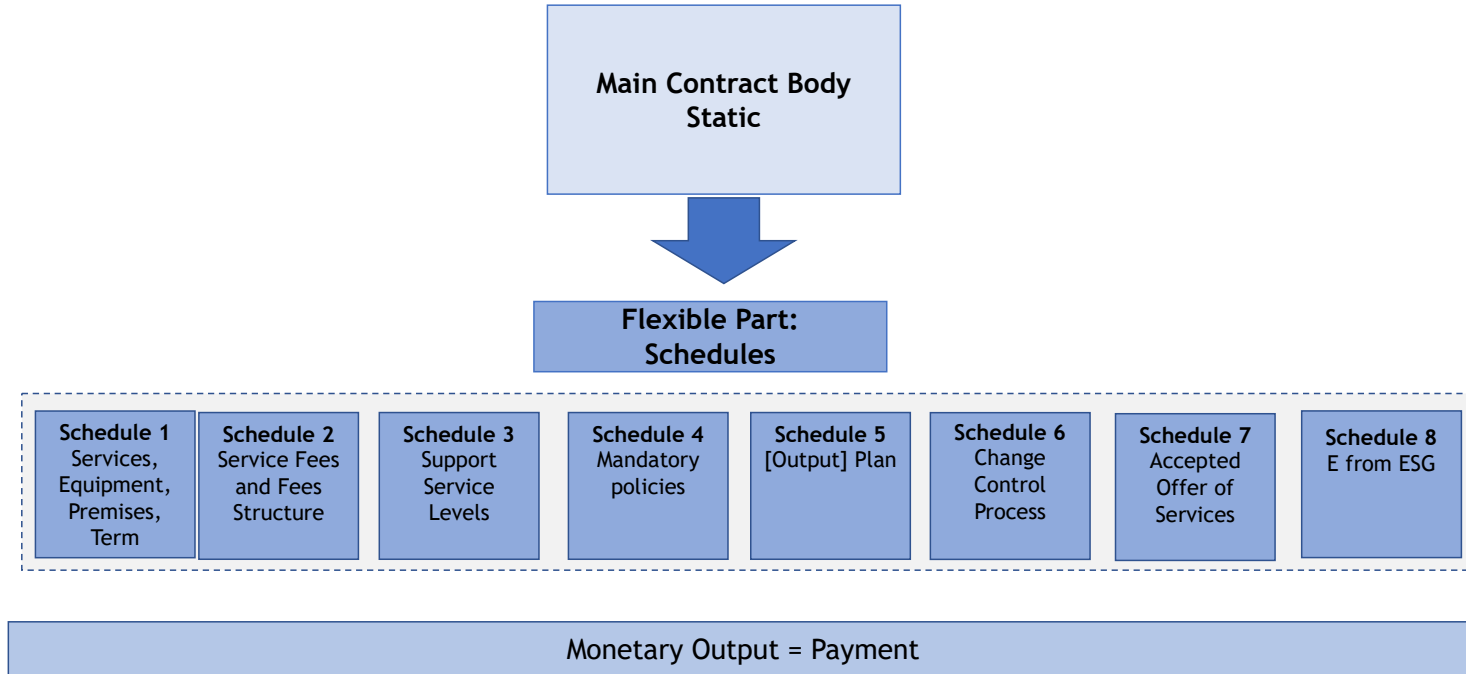
- ✓ This in turn accelerates deal closure and market growth within the energy efficiency arena.
- ✓ Finance is the key to the rollout to scale of energy saving measures in the heating, cooling and lighting sector. For scaling, standardization of contractual arrangements is key.
- ✓ Standardised contracts, are the base for the aggregation of Sustainable Energy Assets as tradable securities via securitization.
- ✓ This grant’s ESCO’s the opportunity to accelerate pipeline growth, deleveraging of their balance sheet, improving liquidity, and reallocation of credit risks to the bond buyers whilst granting companies in the energy efficiency arena access to capital markets.



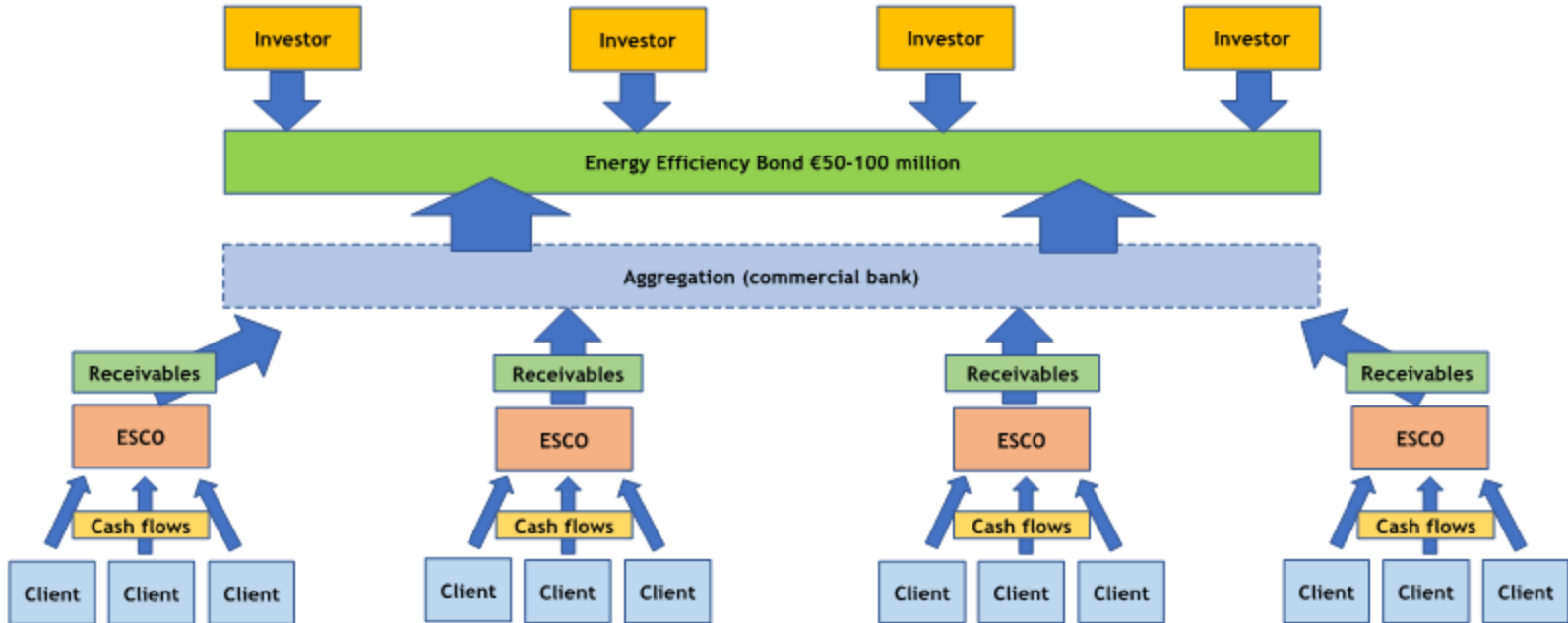
Standardization as a key requirement

- ✓ Finance is the key to the rollout to scale of sustainable energy assets such as lighting, cooling, PVs, heating measures within the EU's B2C and B2B market (i.e. building sector, industry sector)
- ✓ For scaling, standardization of contractual arrangements is key.
- ✓ Standardized contracts are the base for the aggregation of Sustainable Energy Assets as tradable securities via securitization.
- ✓ This in turn accelerates deal closure and market growth within the energy efficiency arena.
- ✓ **This grants ESCos the opportunity to accelerate pipeline growth, deleveraging of their balance sheet, improving liquidity, and reallocation of credit risks to the bond buyers whilst granting companies in the energy efficiency arena access to capital markets.**

Mechanics of a standardized contract



Aggregation of energy efficiency projects





Key benefits of securitization for ESCos

- ✓ The “As a service aspect” is for many companies which are having high debt levels, gearing or are limited by lenders covenants, to take on further debt, to sell their goods.
- ✓ Ability for sale of receivables removes receivables from the contractors books, thus reducing credit exposure, and freeing up capital for the core business
- ✓ At the same time it means the contractor can focus on their core business activities, and not be preoccupied with arranging the finance to do so
- ✓ Receivables represent the investment plus the contractors commercial margin, thus as soon as the receivables are sold, the contractor can take on new business and scale up
- ✓ Securitization vehicles in Luxembourg are taxed at a nominal rate, rendering profits “de facto” tax free

Securitization creates a ‘conveyor belt’ of projects: you can support the energy efficiency market growth and create new business opportunities



EnerSaveCapital

Thank you

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Q&A





Panel discussion



CLOSING REMARKS



Oliver Rapf, Executive Director, BPIE



Financing and business models that deliver





Stay tuned for our upcoming webinar: *The backend of energy efficiency - Data*

July 6th, 2021

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